REMARKS

Claims 1, 3, 5–7, 10-11, 13-15 and 18 remain in the application. Claims 2, 4 and 12 were canceled (claims 8-9 and 16-17 were previously canceled).

Claim 1 and claims 3, 5-7 and 10, dependent thereon, have been amended to require that applicant's vegetable yogurt be based on soy proteins (but the yogurt *may* also contain milk proteins). Further, claims 1, 3, 5-7 and 10, as currently amended, require that the vegetables comprising the pureed vegetables be individually cooked prior to cooling and being pureed. Similarly, claim 11 and claims 13-15 and 18, dependent thereon, have been amended to require that applicant's process for manufacturing vegetable yogurt utilize soy based yogurt and that select vegetables be cooked one at a time before being cooled and pureed. Additionally, dependent claims 5 and 13 were amended to indicate that applicant's vegetable yogurt, although based on soy proteins, *may* also comprise milk proteins.

Entry of the above indicated amendments is respectfully requested.

The present invention, as recited by amended claims 1, 3, 5–7, 10-11, 13-15 and 18, relates to a ready to eat cooked and pureed vegetable **yogurt** and a process for the production thereof. This vegetable yogurt comprises (1) cooked pureed vegetables, (2) yogurt based on soy proteins and (3) active yogurt cultures. In a preferred embodiment, applicant's vegetable yogurt may also comprise milk proteins. As currently amended, the vegetables are to be individually cooked prior to being cooled and pureed. Advantageously, individually cooking the vegetables that comprise the puree insures that none of the vegetables comprising the puree are overcooked (since each vegetable requires a different cooking time and temperature).

Applicant's vegetable yogurt comprises active cultures of Lactobacillus acidophilus, Lactobacillus casei, Lactobacillus reuteri and Bifidobacterium bifidum. Further, applicant's invention requires that no artificial additives and no preservatives be added to the ready to eat vegetable yogurt. Applicant has found that adding **cold** pureed vegetables to **cold** plain yogurt, and maintaining **cold** temperatures, **prevents the yogurt from fermenting the vegetable** and thereby **preserves taste** and **nutritional properties** of the vegetables. Applicant's current claims require that the cooked pureed vegetables range from 40 to 60 percent by weight. The weight percent required by applicant's present claims provides a vegetable yogurt having a significant weight percentage of vegetables without the presentation of preservatives or other non-natural additives, thereby yielding a highly nutritional food packed with essential vitamins, minerals, and fibers inherent in the vegetable utilized.

Rejection under 35 U.S.C. §103(a)

The Examiner has maintained the previous obviousness rejection of claims 1–7, 10–15 and 18 under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent No. 61231958 to Hara, Japanese Patent No. 55007013 to Kazutada et al., Japanese Patent No. 3112454 to Masahiro et al., and Great Britain Patent No. 2294625 to Oliver.

Hara discloses a food product and process to produce a food excellent in hygienicity, nitrient, safety, taste and low calorific value, by using MISO (fermented bean paste) and/or NYUFU (fermented milk product such as yogurt) as an agent to retard the freeze- denaturation of a food. At least a part of the taste of original unfrozen food is produced by the freezing and thawing of a raw material. In the above process 100 pts. of a food such as cereal, potato, cake, bean, fish, shellfish, meat, egg, vegetable, seasoning, cooked food, algae, etc., of the normal state

is mixed with >=3pts. of MISO, NYUFU, desalted MISO, desalted NYUFU or their mixture or a mixture of >=1pt. of said MISO or NYUFU and a seasoning such as sugar, oil and fat, etc. As indicated by the Hara abstract, the Hara food product contains no more than "3 pts." (i.e., 3 parts) MISO or NYUFU relative to 100 parts other ingredients. Therefore, it is submitted that since **no more than 3 of the 103 parts of this food product are yogurt,** the Hara food product is not a yogurt product as taught by applicant. Rather, the *possible* additional of NYUFU to the product merely serves as an agent to retard the damage caused by freezing. It is further submitted that Hara does not require the inclusion of active yogurt cultures in the final product, which is required as an ingredient for applicant's vegetable yogurt food product.

Kazutada et al. discloses a food product and process to prepare a yogurt containing vegetables having softened fermentation odor and improved flavor, by adding vegetables to the yogurt during the preparation step. Finely cut or ground vegetables, extracts, juices, heated or cooked vegetables are added to yogurt before or after the fermentation. The vegetables are added to one or both layers of yogurt and jelly prepared by using a gelatinizing agent. It is submitted that, unlike Kazutada, applicant does **not** teach use of a gelatinizing agent. Therefore, applicant's vegetable yogurt and the Kazutada product will inevitably have different consistencies. It is further submitted that Kazutada, despite the mention of fermentation, does not require the inclusion of active yogurt cultures in the final food product, which is required as an ingredient for applicant's vegetable yogurt food product.

Masahiro et al. discloses a *yogurt jelly* containing vegetable and process to suppress grassy smell of vegetables and improve the taste and flavor by mixing vegetables, yogurt and a gelling agent. The objective vegetable containing yogurt jelly is produced by mixing vegetables,

yogurt and a gelling agent and forming the mixture into a prescribed form. There is no particular restriction on the kind of vegetable and any kind of leaf vegetables, root vegetables, fruit vegetables, stem vegetables or flower vegetables can be used as the vegetable. A conventional plain yogurt on the market can be used as the yogurt. The gelling agent is e.g. carrageenan, agar, gelatin, gellan gum, pectin. xanthan gum or their mixture. It is submitted that Masahiro teaches a "yogurt jelly" product, whereas applicant teaches a yogurt product that does not contain "jelly." As with Kazutada, applicant's vegetable yogurt and the Masahiro product will inevitably have different consistencies. It is further submitted that Masahiro does not require use of active yogurt cultures (merely stating that a "conventional" yogurt may be used), which are required as an ingredient for applicant's vegetable food product.

Oliver discloses savory flavoring for yogurts that comprise rosaceous fruit, preferably one or more of apple, pear, plum and/or damson. The savory flavoring additionally comprises one or more vegetables, herbs and/or spices. The application also provides yogurts flavored with such savory flavorings. It is submitted that Oliver does not require (or even mention) use of active yogurt cultures, which are required as an ingredient for applicant's vegetable food product.

Examiner had indicated that it would be obvious to one of ordinary skill in the art to use conventional yogurt cultures and the claimed percents in that of Hara, Kazutada, Masahiro or Oliver because the use of conventional cultures and preferred amounts is well-within the skill of the art.

As noted supra, none of the above noted references teach use of active yogurt cultures as a *required ingredient* in their final food product. By contrast, amended claim 1 clearly states that

active cultures of Lactobacillus acidophilus, Lactobacillus casei, Lactobacillus reuteri and Bifidobacterium bifidum are a necessary ingredient in applicant's vegetable yogurt food product. Further, claim 11 recites that use of a yogurt containing active cultures is necessary in the process to manufacture applicant's vegetable yogurt food product. It is well known in the art that inclusion of these active cultures is beneficial to health, particularly with regards to the digestion process.

Additionally, applicant's vegetable yogurt, as recited by amended claim 1, requires that the yogurt be based on **soy proteins**. This requirement is reiterated in claim 11, which states that soy based yogurt is to be used in the manufacturing process. It is submitted that there is no such requirement to use yogurt based on soy proteins in the above noted references.

As noted supra, claims 3, 5–7 and 10 represent preferred embodiments of the food product recited by claim 1 and are dependent thereon. Further, claims 13-15 and 18 represent preferred embodiments of the process recited by claim 11 and are dependent thereon. These dependent claims contain all the limitations of the claim to which they depend.

Therefore, for reasons discussed above, use of conventional yogurt cultures and the claimed percents in that of Hara, Kazutada, Masahiro or Oliver would **not** produce applicant's vegetable yogurt food product. The resulting yogurt would **not** contain active cultures, and it would **not** be based on soy proteins.

Examiner indicated that applicant's arguments filed April 25, 2008, were considered but were not found to be persuasive. In summary, Examiner indicated that the prior art "clearly teaches the addition of vegetables to yogurt" and that applicant is "using known components to

obtain no more than expected results."

As noted supra, applicant's invention as currently amended requires a ready to eat vegetable yogurt and process, comprising (i) cooked and pureed vegetables that are rapidly cooled before pureeing to yield a cold uniform consistency, (ii) cold plain yogurt based on soy proteins comprising active cultures of Lactobacillus acidophilus, Lactobacillus casei, Lactobacillus reuteri and Bifidobacterium bifidum, (iii) natural additives to enhance flavor and taste, (iv) the cold cooked pureed vegetables, the cold plain yogurt with active cultures and the natural additives blended to form a cold homogeneous, uniform mixture of ready to eat vegetable yogurt, wherein the cold cooked pureed vegetables range from 40 to 60 percent by weight, and wherein no artificial additives or preservatives are added to the ready to eat vegetable yogurt; and (v) the ready to eat vegetable yogurt stored at refrigeration temperatures until consumed to prevent the active cultures of the yogurt from fermenting the cold cooked pureed vegetables so that the cold cooked pureed vegetables retain their natural, unfermented, chemical makeup. Further, applicant's claims require that the cold cooked pureed vegetables remain unfermented when the vegetable yogurt is stored at refrigeration temperatures.

It is conceded that applicant's vegetable yogurt food product (and the process to manufacture same), as recited by claims 1, 3, 5–7, 10-11, 13-15 and 18, does indeed teach use of known components. Despite this fact, **none of Hara, Kazutada, Masahiro or Oliver disclose the following elements required by applicant's claims**: (1) using cooked vegetables; (2) pureeing cold vegetables to yield a cold puree; (3) the cold cooked pureed vegetables ranging from 40 to 60 percent by weight; (4) no artificial additives or preservatives; and (5) vegetables remaining unfermented. Further, as discussed above, Hara, Kazutada, Masahiro and Oliver do

not require use of (1) yogurt based on soy proteins and (2) use of yogurt containing active cultures.

Hara discloses using MISO (fermented bean paste) and/or NYUFU (fermented milk product such as yogurt) as an agent to retard the freeze- denaturation of a food, wherein at least a part of the taste of original unfrozen food is produced by the freezing and thawing of a raw material. Hara teaches using 100 pts. of a food such as cereal, potato, cake, bean, fish, shellfish, meat, egg, vegetable ....of the ***normal state*** being mixed with >=3pts. of MISO, NYUFU, desalted MISO, desalted NYUFU or their mixture or a mixture of >=1pt. of said MISO or NYUFU and a seasoning such as sugar, oil and fat, etc. The vegetables used in Hara are of the **"normal state" and therefore would be raw or uncooked vegetables**. There is no suggestion or teaching in Hara that the vegetables are pureed. Therefore, Hara does not only fail to disclose using cooked, cooled pureed vegetables as is required by applicant's claims, but tends to teach away from using same. **Hara is merely a process for freezing vegetables, and cannot even be viewed as a vegetable yogurt product**, as the amount of NYUFU is minimal, >=3pts., as compared to the vegetable, 100pts. **Therefore, Hara does not teach or suggest all the claim limitations of applicant's claims**.

Kazutada et al. discloses a food product and process to prepare a yogurt containing vegetables having **softened fermentation odor and improved flavor, by adding vegetables to the yogurt during the preparation step**. Kazutada et al. teaches finely cut or ground vegetables, extracts, juices, **heated or cooked vegetables** are added to yogurt **before or after the fermentation**. Kazutada et al. further teaches that the vegetables are added to one or both layers of yogurt and jelly prepared by using a gelatinizing agent. Applicant's claim limitations require

that cold cooked pureed vegetables are added to cold plain yogurt to form a cold homogeneous, uniform mixture of ready to eat vegetable yogurt, wherein no artificial additives or preservatives are added and the ready to eat vegetable yogurt is stored at refrigeration temperatures until consumed to prevent said active cultures of said yogurt from fermenting said cold cooked pureed vegetables so that said cold cooked pureed vegetables retain their natural, **unfermented,** chemical makeup. Meanwhile, Kazutada et al. not only fails to teach a homogeneous uniform mixture ("vegetables are added to one or both layers of yogurt and jelly", Kazutada et al., abstract), but fails to teach that the vegetables remain unfermented. In fact, Kazutada et al. **teaches away from the vegetables being unfermented** by expressly teaching "*a yogurt containing vegetables having softened fermentation odor and improved flavor, by adding vegetable to the yogurt during the preparation step.*" Moreover, nowhere in Kazutada et al. is there a disclosure or suggestion or teaching that the vegetables are pureed to form a cold vegetable puree that is added to the yogurt. Indeed such a teaching of adding cold pureed vegetables would inherently conflict with the teachings of Kazutada et al. because Kazutada et al. intends for the vegetables to become fermented. **Therefore, Kazutada et al. does not teach or suggest all the claim limitations of applicant's claims.**

Masahiro et al. discloses a yogurt jelly containing vegetable and process to suppress grassy smell of vegetables and improve the taste and flavor by mixing vegetables, yogurt and a gelling agent. Nowhere in Masahiro et al. is there a disclosure, suggestion or teaching that the vegetables are pureed to form a cold vegetable puree that is added to the yogurt. Nor is there a teaching that no preservatives or artificial additives are added to the yogurt, instead Masahiro et al. teaches using a gelling agent. **Therefore, Masahiro et al. does not teach or suggest all the**

claim limitations of applicant's claims.

Lastly, Oliver discloses savory flavoring for yogurts comprise rosaceous fruit, preferably one or more of apple, pear, plum and/or damson. The savory flavoring additionally comprises one or more vegetables, herbs and/or spices. The application also provides yogurts flavored with such savory flavorings. Oliver discloses a vegetable type yogurt wherein rosaceous fruit, 9 to 31 weight percent, is added as a stabilizing agent acting as a preservative for the yogurt food product. The addition of the rosaceous fruit in Oliver for preserving the yogurt food product conflicts with applicant's limitation that no preservatives be added to the yogurt. **Therefore, Oliver does not teach or suggest all the claim limitations of applicant's claims**.

Therefore, applicant's current claims are patentable over Hara, Kazutada, Masahiro and/or Oliver because none of the references, alone or in combination, teach or suggest all the claim limitations of applicant's claimed invention. Further, Applicant's current claims are patentable over Hara, Kazutada, Masahiro and/or Oliver because there is no teaching, suggestion or motivation to modify the references applied to omit preservatives, as is required by applicant's claims, because the references teach away from a vegetable yogurt having large weight percent of vegetables with no preservative or artificial flavorings added, as is required by applicant's claims.

The Examiner has indicated that applicant's claims differ as to the recitation of specific cultures, percents and a cooling step.

With regards to the recitation of specific culture, as discussed supra, the above noted prior art references do not require the inclusion of yogurt cultures in their final food product. Further,

it is submitted that the above noted prior art references do not specify use of a yogurt culture, or identify a particular yogurt culture that is suitable for the manufacture of the respective food product.

As to the percents of vegetable to yogurt claimed by Applicant, the Examiner has stated that, in the absence of showing to the contrary, the amounts claimed are seen to be no more than a matter of choice, dictated by preference, and well-within the skill of the art. However, Applicant respectfully submits that the amounts are not merely a matter of choice, but have been found to provide a product where the vegetables remain stable and unfermented when blended in cold conditions with cold yogurt, while the art teaches to the contrary. Namely, the art applied teaches that the addition of vegetables to yogurt requires preservatives and additives in order to stabilize the vegetables and prevent fermentation and degradation.

Alternatively, Applicant's claims omit the use of a stabilizing agent while at the same time retaining the omitted element's (stabilizing agent's) function.

Under MPEP 2144.04 II B, the omission of an element and retention of its function is indicia of unobviousness. In re Edge, 359 F.2d 896, 149 USPQ 556 (CCPA 1966). In Edge an applicant's claims were directed to a printed sheet having a thin layer of erasable metal bonded directly to a sheet wherein the thin layer obscured the original print until removal by erasing. The prior art in Edge disclosed a similar printed sheet further comprising an intermediate transparent and erasure-proof protecting layer which prevented erasure of the printing when the top layer was erased. The Court in Edge held that although the transparent layer taught by the prior art was eliminated, the function of the transparent layer was retained by the applicant, and therefore the applicant's claims were found unobvious. As in Edge, Applicant's claims 1 – 18

provide a vegetable yogurt that omits an element of the prior art references, while at the same time retaining the element's function.

Each reference applied by the Examiner **teaches** the addition of an agent to a food product having vegetables and yogurt in order to provide the function of stability to the food product. The art as a whole, like these references, teaches that vegetables are unstable in yogurt, and as such, small weight percents of vegetables are taught to be used and stabilization means are taught to be needed – otherwise the vegetables will become rancid in taste and lose nutritional value. Therefore, any combination of the references applied and the art as a whole would render producing a food product having a lesser weight percent of vegetable and stabilization additives. Applicant has found that where the vegetables are pureed to form a cold puree that is added to cold yogurt, a large weight percent of vegetables to yogurt can be utilized without fermentation or breakdown of the vegetable. Applicant's claims omit the use of a stabilizing agent while at the same time retaining the omitted element's (stabilizing agent's) function. (MPEP 2144.04 II B, "*Omission of an Element with Retention of the Element's Function Is an Indicia of Unobviousness*"). As such, indicia of unobviousness have been shown by the applicant.

Hara discloses the addition of fermented bean past (MISO) and / or fermented milk product, such as yogurt (NYUFU), to a food product (such as vegetable), in a ratio of ~3pts. MISO / NYUFU to 100pts. food product so that the MISO/NYUFU acts as an agent to retard the freeze-denaturation of the food product. Kazutada et al. discloses a process wherein finely cut or ground vegetables, extracts, juices, *heated or cooked vegetables* are added to yogurt *before* fermentation and a gelatinizing agent is added, wherein the addition before fermentation and the gelatinizing agent are added in order to provide stabilization to the vegetables via soften

fermentation odor and improved flavor. Masahiro et al. discloses a process for formulating a vegetable food product comprising the mixing of vegetables, yogurt and a gelling agent appointed to suppress the grassy smell of vegetables and improve the taste and flavor. Lastly, Oliver discloses a vegetable type yogurt wherein rosaceous fruit, 9 to 31 weight percent, is added as a stabilizing agent acting as a preservative for the yogurt food product.

The addition of a sizeable weight percentage of pureed vegetables, as called for by applicant's present claims 1 – 18, is carried out under cold conditions as the cooked vegetable are rapidly cooled when at least one frozen vegetable is added thereto and mixed to form a cold pureed vegetable that is blended with yogurt so that degradation of the vegetable's nutrients is minimized. The addition of cold pureed vegetables to a yogurt is not taught or suggested by the prior art workers, including Hara, Kazutada et al., Masahiro et al., or Oliver. Nor is the combination of combining cooked vegetables and at least one frozen vegetable taught or suggested by the prior art workers, including Hara, Kazutada et al., Masahiro et al., or Oliver. Moreover, the addition of cold pureed vegetables in amounts ranging between 40 to 60 weight percent is not disclosed or suggested by any prior art worker, including Hara, Kazutada et al., Masahiro et al., or Oliver.

Rather, the prior art teachings, including Hara, Kazutada et al., Masahiro et al., or Oliver suggest that preservatives and the like (rosaceous fruit; jellies; etc.) must be added to vegetable yogurt preparations in order to stabilize the flavoring. None of the prior art references, including Hara, Kazutada et al., Masahiro et al., or Oliver teach a ready to eat vegetable yogurt that utilizes 40 to 60 weight percent of cold vegetables without the addition of preservatives and the like. Clearly, such a sizeable addition of cold pureed vegetable is a not merely a matter of choice. For

the amount of vegetable required by Applicant's claims 1-18 and the requirement that the vegetables be added in a cold pureed state constitute elements that function to yield a highly nutritional food product that is nutritionally stable and viable without the need for the addition of stabilizing agents.

Applicant has carried out a consumer survey demonstrating impending commercial success of applicant's food product and demonstrates a long felt need. The survey questioned consumers as to the taste, texture, overall appeal, and likelihood of purchasing the product. A scale of 1 – 5 was utilized, with 5 being the highest score indicating a positive score. Four flavors were available for testing: carrot, broccoli, butternut squash and sweet potato. Sixty-two recorded samples of the vegetable yogurt of applicant's present claims were given out, with about forty non-recorded samples. Taste, texture, overall appeal and likelihood to purchase all scored high, averaging approximately 4+ on the scale from 0 to 5. Average score for likelihood to purchase the food product was 4.09 out of 5. It is respectfully submitted that applicant's survey, which demonstrates the strong prospect that applicant's food product will be commercially successful, provides further evidence supporting patentability of the invention called for by applicant's claims.

Accordingly, reconsideration of the rejection of claims 1, 3, 5–7, 10-11, 13-15 and 18 under 35 USC §103(a) as being unpatentable over Hara, Kazutada, Masahiro and/or Oliver is respectfully requested.

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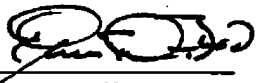
CONCLUSION

In view of the amendments to the claims and the remarks set forth above, it is respectfully submitted that the present application is in allowable condition. Reconsideration of the rejections; entry of the above noted amendments; and allowance of claims 1, 3, 5–7, 10-11, 13-15 and 18, as amended, are earnestly solicited.

Respectfully submitted,
Marina Shereshevsky

By 
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